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09/894,585	06/28/2001	Kanad Ghose	RB-131	5272

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EXAMINER	
OSMAN, RAMY M	

ART UNIT	PAPER NUMBER
2157	

DATE MAILED: 08/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/894,585	GHOSE ET AL.	
	Examiner	Art Unit	
	Ramy M. Osman	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5-11 and 13-80* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5-11 and 13-80* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. The communication is responsive to RCE amendment filed on May 26, 2006, where applicant amended claims 1,6-8,10,11,13,16,18-19,78-80. Claims 1,5-11,13-80 are pending.

Response to Arguments

2. Applicant's arguments filed 5/26/2006 have been fully considered but they are not persuasive.

3. Applicant argues that Forin does not teach "a particular range of bytes in a stream of data to be transmitted".

In reply, "range of bytes" is broad language and is interpreted to mean a successive group of bytes. Forin does teach this where for example, if eleven bytes of a data flow are to be transmitted, then the eleven bytes may be broken down in accordance with the available credits. In this case, the eleven bytes will be broken down into a "range" of five bytes and a "range" of six bytes. Each particular "range" of bytes in the flow are then transmitted to the receiver. (see at least column 16 lines 25-50 and column 17 lines 25-40)

4. Applicant argues that Dunning does not teach a system "that allows retransmission of only improperly received data".

In reply, this feature is not found in the claim language. The claims are broad and can be interpreted to read on the Dunning reference as outlined below. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

5. Applicant argues that Cheriton is different than applicants system and does not teach applicants system.

In reply, Cheriton was only used as a secondary reference for teaching the limitation "counter is equal to at least a predetermined value decrementing said counter by said byte size upon transmission of said credits" as found in claim 8 for example. However, the primary reference, Forin, does teach applicants invention as outlined below.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1,611,14,15,77,78,81 rejected under 35 U.S.C. 102(e) as being anticipated by Forin et al. (US Patent No. 6,594,701).

8. In reference to claim 1, Forin teaches a method and system for quickly and reliably transmitting a byte stream from a sending node to a receiving node in a data communication network, the method comprising:

a) initially transmitting a predetermined number of credits from a receiving node to a sending node, said initially transmitted credits authorizing transmission from said sending node of a first unique range of bytes of a byte stream (column 22 lines 25-35);

b) transmitting said first unique range of bytes of said byte stream from a buffer disposed at said sending node to said receiving node (column 22 lines 45-67);

c) transmitting an additional, predetermined number of credits from said receiving node to said sending node when a predetermined event occurs, said additional, predetermined number of credits authorizing transmission of a second unique range of bytes of said byte stream (column 23 lines 10-35); and

d) releasing at least a portion of said buffer corresponding to said first unique range of bytes upon occurrence of said predetermined event (column 23 lines 18-30).

9. As to claim 6, Forin teaches the method as recited in claim 1, wherein said predetermined event is one from the group of events:

a) at least one of said first unique range of bytes and said second unique range of bytes from said byte stream is received at said receiving node; b) at least one of said first unique range of bytes and said second unique range of bytes from said byte stream is received at said receiving node and a congestion indicator at said receiver node is less than a predetermined threshold; c) at least one of said first unique range of bytes and said second unique range of bytes from said byte stream is received at said receiving node and a data error indicator at said receiver node is less than a predetermined threshold; d) a buffer disposed at said receiving node and containing at least one of said first unique range of bytes and said second unique range of bytes has free space; e) a buffer disposed at said receiving node containing at least one of said first unique range of bytes and said second unique range of bytes has free space and a congestion indicator at said receiver node is less than a predetermined threshold; f) a buffer disposed at said receiving node containing at least one of said first unique range of bytes and said second unique range of bytes

has free space and a data error indicator at said receiver node is less then a predetermined threshold. (column 2 lines 20-45, column 12 lines 32-45 and column 22 lines 25-67).

10. As to claim 7, Forin teaches the method as recited in claims 1, wherein the reception of said additional, predetermined number of credits at said sending node indicates that at least a subset of said byte stream was correctly received at said receiving node. (column 12 lines 32-45 and column 22 line 55 – column 23 line 15).

11. As to claim 9, Forin teaches the method as recited in claims 1, wherein said credits from said credit transmission of at least one of said initially transmitting step (a) and said transmitting step (c) are reduced or delayed to reflect congestion detection in said communications network (column 15 lines 35-67 and column 18 lines 50-60).

12. As to claim 10 , Forin teaches the method as recited in claim 1, wherein said transmitting of said first unique range of bytes step (b) is dependent upon a counter exceeding a predetermined number representative of received credits at said sending node, said transmitting step (b) comprises the sub-steps of:

i) transmitting said first unique range of bytes from said sending node to said receiving node when said counter is equal to at least said number first unique range of bytes; ii) decrementing said counter by said number said first unique range of bytes upon said transmission thereof (column 15 lines 1-35 and column 22 lines 25-67).

13. As to claim 11, Forin teaches the method as recited in claims 1, wherein said bytes transmitted in said transmitting step (a) and said transmitting step (c) are in the form of Transmission Control Protocol (TCP) packets, whereby said method is compatible at the

application programming interface level with TCP (column 1 lines 20-67, column 4 lines 1-20 and column 14 lines 45-67).

14. As to claim 14, Forin teaches the method as recited in claims 1 wherein at least one of said initially transmitting step (a) and said transmitting step (c) of said predetermined number of credits occurs by piggybacking existing traffic with said credits from said receiving node to said sending node (column 13 lines 1-15 and column 16 lines 1-35).

15. As to claim 15, Forin teaches the method as recited in claim 1, wherein said predetermined number of credits in at least one of said initially transmitted step (a) and said credit transmission step (c) are not retransmitted if they are lost retransmitted if they are lost (column 18 lines 61-67, column 21 lines 1-45, column 22 line 55 – column 23 line 40).

16. As to claim 77, Forin teaches the method as recited in claim 1, wherein said second unique range of bytes is contiguous to said first unique range of bytes (column 23 lines 10-55).

17. As to claim 78, Forin teaches the method as recited in claim 77, the steps further comprising:

d) at said sending node, upon receipt of said credit authorizing said second unique range of bytes, when said second unique range of bytes is non-contiguous with a first previous unique range of bytes, sending intervening bytes of said byte stream as though credits specifically authorizing sending thereof were explicitly received at said sending node (column 23 lines 10-55).

18. As to claim 81, Forin teaches the method for quickly and reliably transmitting a byte stream as recited in claim 1, the steps further comprising:

f) upon receipt of said predetermined number of credits authorizing transmission of at least one of said first unique range of bytes, and said second unique range of bytes, removing a predetermined number of previously authorized and transmitted bytes from a buffer at said means for transmitting (column 23 lines 20-67).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

20. Claim 13,16-27,29,31-45,47-65, 67-76,79,80 rejected under 35 U.S.C. 103(a) as being unpatentable over Forin et al. (US Patent No. 6,594,701) in view of Dunning et al. (US Patent No. 6,683,850).

21. As to claims 19,39,40 and 57, Forin teaches a method and system for quickly and reliably transmitting a byte stream from a sending node having credits indicating a predetermined range of bytes from said byte stream to be transmitted, and an established connection to a receiving node in a communication network having a plurality of nodes and with a plurality of interconnectable paths, wherein said predetermined range of bytes are formed into a plurality of data packets in accordance with a predetermined protocol, the method comprising:

a) providing a predetermined identifier associated with data packets (column 4 lines 1-35);

b) if said predetermined identifier indicates a credit and negative acknowledgement transport system, transmitting a predetermined range of bytes of a byte stream from a sending node to a receiving node, corresponding to a range of bytes specified in credits present at said sending node (column 2 lines 50-67 and column 22 lines 25-67);

c) transmitting a predetermined number of credits from said receiving node to said sending node when a predetermined event occurs, said credits specifying a second unique range of bytes to be transmitted (column 3 lines 1-50 and column 23 lines 10-35);

Forin fails to teach d) transmitting a predetermined number of negative acks from said receiving node to said sending node, when one of said transmitted bytes is lost or corrupted. However Dunning teaches a number of negative acknowledgements from said receiving node to said sending node, when at least one transmitted byte is lost or corrupted (See Abstract). Dunning disclose negative acknowledgements include at least one error indicate in data packet (column 3 lines 63-67 and column 4 lines 1-10).

Therefore it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to modify Forin in view of Dunning to alert the sender of corrupt packet or packet error by the receiver in delivery system to retransmit to corrupt packets.

22. As to claims 20 and 58, Forin teaches the method and system as recited in claims 19 and 57. Forin fails to teach if said predetermined identifier indicates a transport system that is not exclusively credit and negative acknowledgement based, processing said data stream by a transport system independent of credit and negative acknowledgements, whereby compatibility at the application programming interface level of said first transport system and said second transport system is maintained. However Dunning teaches predetermined identifier indicates a

transport system that is not exclusively credit and negative acknowledgement based, processing said data stream by a transport system independent of credit and negative acknowledgements, whereby compatibility at the application programming interface level of said first transport system and said second transport system is maintained (See Abstract). Dunning disclose negative acknowledgements include at least one error indicate in data packet (column 3 lines 63-67 and column 4 lines 1-10).

It would have been obvious to a person haring ordinary skill in the art at the time of Applicant's invention to modify Forin in view of Dunning by providing transport system that is not exclusively credit and negative acknowledgement based processing, one would be motivated to do so where in application to application protocol based connection negative acks are transmitted to alert the sender of corrupt packet or packet error by the receiver in delivery system to retransmit to corrupt packets.

23. As to claims 21 and 59, Forin teaches the method and system as recited in claims 19 and 57, the steps further comprising:

e) providing a first packet filter for filtering data packets at a sending node (column 19 lines 1-43);

f) providing a second packet filter for filtering data packets at a receiving node, s that said predetermined identifier indicates a credit and negative acknowledgement transport system dependent on said first and second packet filters (column 19 lines 1-43);

Forin fails to teach transmitting a predetermined number of negative acknowledgements from said receiving node to said sending node, when at least one transmitted byte is lost or corrupted. However Dunning teaches a number of negative acknowledgements from said

receiving node to said sending node, when at least one transmitted byte is lost or corrupted. (See abstract) Dunning disclose negative acknowledgements include at least one error indicate in data packet, see col. 3, lines 63-67; col. 4, lines 1-10)

Therefore it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to modify Forin in view of Dunning by adding the function of negative acknowledgements to alert the sender of corrupt packet or packet error by the receiver in delivery system to retransmit to corrupt packets.

24. As to claims 22,60 and 79, Forin teaches the method and system as recited in claims 19 and 57. Forin fails to teach the step of retransmitting at least once, from said sending node to said receiving node, said at least one of said lost or corrupted bytes corresponding to said predetermined number of negative acknowledgements received at said sending node. However Dunning teaches retransmitting at least once, from said sending node to said receiving node, said lost or corrupted bytes corresponding to said predetermined number of negative acknowledgements received at said sending node (see abstract). Dunning disclose retry negative acknowledgements include at least one error indicate in bad data packet, (see col. 3, lines 63-67; col. 4, lines 1-10; col. 8, lines 53- 67).

Therefore it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to modify Forin in view of Dunning by adding the function of retransmitting negative acknowledgements to a receiver in case of error or corrupted transmission to alert the communication system during the three-way handshake system.

25. As to claims 23,41 and 61, Forin teaches the method and system as recited in claims 19,39 and 57, wherein said step (c) of transmitting said predetermined number of credits from

said receiving node to said sending node occurs before said transmitting predetermined number of bytes of said byte stream step (b) (column 3 lines 1-25 and column 22 lines 25-67).

26. As to claims 24,42 and 62, Forin teaches the method and system as recited in claims 23,39 and 61, wherein said transmitting of said predetermined number of credits step (c) occurs during a connection establishment of said sending node and said receiving node (column 5 lines 5-16 and column 22 lines 25-67).

27. As to claims 25,43 and 63, Forin teaches the method and system as recited in claims 23,39 and 61, wherein said step of transmitting of said predetermined number of credits occurs after a connection establishment of said sending node and said receiving node. (column 5 lines 5-16 and column 22 lines 25-67).

28. As to claims 26,44 and 64, Forin teaches the method and system as recited in claims 19,39 and 57, wherein said predetermined event is one from the group of:

a) a predetermined number of bytes from said byte stream is received at said receiving node; b) a predetermined number of bytes from said byte stream is received at said receiving node and a congestion indicator at said receiver node is less than a predetermined threshold; c) a predetermined number of bytes from said byte stream is received at said receiving node and a data error indicator at said receiver node is less than a predetermined threshold; d) a buffer at said receiving node, containing said bytes transmitted from said sending node to said receiving node, has free space; e) a buffer at said receiving node, containing said bytes transmitted from said sending node to said receiving node, has free space and a congestion indicator at said receiver node is less than a predetermined threshold; f) a buffer at said receiving node, containing said bytes transmitted from said sending node to said receiving node, has free space

and a data error indicator at said receiver node is less then a predetermined threshold. (column 2 lines 20-45, column 12 lines 32-45 and column 22 lines 25-67).

29. As to claims 27,45 and 65, Forin teaches the method and system as recited in claims 19,39 and 57, wherein the reception of said credits at said receiving node indicates that at least a subset of said byte stream was correctly received at said receiving node (column 12 lines 32-45 and column 22 line 55 – column 23 line 15).

30. As to claims 29,47 and 67, Forin teaches the method and system as recited in claims 19,39 and 57, wherein said credits from said credit transmission step are reduced or delayed to reflect congestion detection in said data communication network (column 15 lines 35-67).

31. As to claims 31,49 and 69, Forin teaches the method and system as recited in claims 19,39 and 57, wherein said bytes transmitted in said byte transmission step are in the form of Transmission Control Protocol (TCP) packets, whereby said method is compatible at the application programming level of TCP (column 1 lines 20-67, column 4 lines 1-20 and column 14 lines 45-67).

32. As to claims 32,50 and 70, Forin teaches the method and system as recited in claims 19,39 and 57, wherein the established connection between said sending node and said receiving node is established using the standard 3-way handshake of Transmission Control Protocol (TCP). (column 3 lines 63-67 and column 4 lines 19, Forin disclosed sender and receiver exchange credit message through TCP communication).

33. As to claims 33,51 and 71, Forin teaches the method and system as recited in claims 19,39 and 57. Forin fails to teach a further including the step of resetting said established connection when said transmission of at least one of said negative acknowledgements occurs a

predetermined number of times. However Dunning teaches a of resetting said established connection when said transmission of at least one of said negative acknowledgements occurs a predetermined number of times (see Abstract) Dunning disclosed retry the pervious link established and transmits negative acknowledgements (column 8 lines 53-67 and column 9 lines 53- 58).

Therefore it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to modify Forin in view of Chariton by adding the function where retry previous line and one negative acknowledgements are transmit in predetermined number credit sent from sender to receiver.

34. As to claims 34 and 72, Forin teaches the method and system as recited in claims 19 and 57, wherein said transmitting of said predetermined number of credits occurs by piggybacking existing traffic with said credits from said receiving node to said sending node (column 12 lines 32 –67, column 13 lines 1-13 and column 15 lines 35-52).

35. As to claims 35 and 73, Forin teaches the method and system as recited in claims 19 and 57, wherein said credits in said credit transmission step are not retransmitted if they are lost (column 18 lines 61-67, column 21 lines 1-45, column 22 line 55 – column 23 line 40).

36. As to claim 52, Forin teaches the method and system as recited in claims 39 wherein at least one of said initially transmitting step (a) and said transmitting step (c) of said predetermined number of credits occurs by piggybacking existing traffic with said credits from said receiving node to said sending node (column 13 lines 1-15 and column 16 lines 1-35).

37. As to claim 53, Forin teaches the method and system as recited in claim 39, wherein said predetermined number of credits in at least one of said initially transmitted step (a) and said

credit transmission step (c) are not retransmitted if they are lost retransmitted if they are lost (column 18 lines 61-67, column 21 lines 1-45, column 22 line 55 – column 23 line 40).

38. As to claim 13, Forin teaches the method of claim 79, the steps further comprising:

d) resetting said data communication network when said transmission of at least one of said negative acknowledgements occurs a predetermined number of times (column 23 lines 11-67).

39. As to claims 16,36,54 and 74, Forin teaches the method and system as recited in claims 79,19,39 and 57. Forin fails to teach predetermined number of negative acknowledgements is transmitted at predetermined events. However Dunning teaches number of negative acknowledgements is transmitted at predetermined events (See abstract). Dunning disclose retry negative acknowledgements include at least one error indicated in bad data packet (column 3 lines 63-67, column 4 lines 1-10 and column 8 lines 53- 67).

Therefore it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to modify Forin in view of Dunning by adding the function of retransmitting negative acknowledgements which are received by receiver in case of error make sure receiving entities receive ,all transmit packet.

40. As to claims 17,37,55 and 75, Forin teaches the method and system as recited in claims 79,19,39 and 57. Forin fail to teach wherein said at least one corrupted byte is detected by means of error detection hardware only. However Dunning teaches a one corrupted byte is detected by means of error detection hardware only. (See abstract) Dunning disclosed devices where corrupted packet and bit errors is found (column 6 lines 23-30).

Therefore it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to modify Forin in view of Dunning so that packets transmission stay reliable and packets are not dropped or reorder due to network congestion or bit error.

41. As to claims 18,38,56 and 76, Forin teaches the method and system as recited in claims 79,19,39 and 57. Forin fails to teach, least one corrupted byte is detected only once by software error detection means. However Dunning teaches a one corrupted byte is detected only once by software error detection means. (See Abstract) Dunning disclose CRC error detection technique to determined any message been corrupted (column 8 lines 27-50).

Therefore it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to modify Forin in view of Dunning by adding the CRC software error detection mechanism detect: the corrupted retransmitted message between receiver and sender.

42. As to claim 80, the method for quickly and reliably transmitting a byte stream as recited in claim 79, the steps further comprising:

Forin fails to explicitly teach f) retransmitting at least once, from said sending node to said receiving node, said at least one lost or corrupted byte corresponding to said negative acknowledgment. However Dunning teaches retransmitting at least once, from said sending node to said receiving node, said lost or corrupted bytes corresponding to said predetermined number of negative acknowledgements received at said sending node (see abstract). Dunning disclose retry negative acknowledgements include at least one error indicate in bad data packet, (column 3 lines 63-67, column 4 lines 1-10, column 8 lines 53- 67).

Therefore it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to modify Forin in view of Dunning by adding the function of retransmitting negative acknowledgements to a receiver in case of error or corrupted transmission to alert the communication system.

43. Claims 8,28,30,46,and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forin et al. (US Patent No. 6,594,701) in view of Dunning et al. (US Patent No. 6,683,850) further view of Cheriton et al. (US Patent No 6,724,721).

44. As to claims 8 and 46, Forin teaches the method and system as recited in claims 1 and 39, wherein said step of transmitting of said additional predetermined number of credits is dependent upon a counter exceeding a predetermined number representative of received bytes at said receiving node, wherein at least one of said initially transmitting step (a) and said transmitting step (c) comprise transmitting a predetermined number of credits from said receiving node to said sending node (column 8 lines 18-23, column 15 lines 46-53 and column 22 line 45 – column 23 line 45).

Forin fails to teaches wherein said counter is equal to at least a predetermined value decrementing said counter by said byte size upon transmission of said credits. However Cheriton teaches when said counter is equal to at least a predetermined value and decrementing said counter by said byte size upon transmission of said credits (See abstract) Cheriton disclose credits values is tested against the zero and credit values is decremented by credit size (column 4 lines 34-44).

It would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to modify Forin in view of Chariton by providing counter is equal to at least a predetermined value. One would be motivated to do so, so that traffic flow can be efficiently managed and improved by using credits values, which represent flow parameters.

45. As to claims 28,30 and 66, Forin teaches the method and system as recited in claims 19 and 57, wherein said step of transmitting of said predetermined number of credits is dependent upon a counter exceeding a predetermined number representative of received bytes at said receiving node, said transmitting step including the steps of:

transmitting a predetermined number of credits from said receiving node to said sending node (column 8 lines 18-23, column 15 lines 1-35 and column 22 lines 25-67).

Forin fails to teaches when said counter is equal to at least a predetermined value; and decrementing said counter by said byte size upon transmission of said credits. However Chariton teaches when said counter is equal to at least a predetermined value; and decrementing said counter by said byte size upon transmission of said credits (See abstract) Chariton disclose credits values is tested against the zero and credit values is decremented by credit size (see column 4, lines 34-44).

Therefore it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to modify Forin in view of Chariton to alert the sender of a corrupt packet or packet error noticed by the receiver in the delivery system, and for the sender to retransmit those packets.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramy M. Osman whose telephone number is (571) 272-4008. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RMO
August 8, 2006

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SUPERVISORY PATENT EXAMINER
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